27. (Once Amended) The method of claim 26, wherein cliques having two or more neighbors that were assigned time slots in step (a) are next assigned time slots.

REMARKS

Applicants thank the Examiner for issuing the Advisory Action dated January 17, 2003. Regarding the rejections set forth by the Examiner, applicants request reconsideration of the application in light of the remarks contained herein.

Applicants have filed an appeal on the Examiner's rejections, and an Appeal Brief has been filed concurrently with this Amendment. With respect to the Examiner's rejection of certain of the claims under 35 U.S.C. § 112, second paragraph, it is thought most proper to request the Examiner approve certain amendments to said claims, to thereby reduce the issues on appeal. It is believed these amendments satisfy the requirements of 35 U.S.C. § 112, second paragraph, and that entry of the amendments will place the affected claims in allowable form. Applicants have responded fully to the Examiner's 35 U.S.C. § 103(a) rejections of claims 1, 2 and 23 in the Appeal Brief, and will not be addressed in this Amendment.

The Examiner rejected claims 20-22 and 24-29 under 35 U.S.C. § 112, second paragraph, asserting that these claims were indefinite. Applicants have amended claims 20, 24 and 25, which the Examiner singled out as containing indefinite language. These claims have been amended to more particularly point out and distinctly claim what applicants regard as the invention. No new matter has been entered by this amendment. A marked-up version of the claims, showing changes made thereto, is attached to this Response.

Claim 20: The Examiner rejected claim 20, asserting step (d) is confusing. Step (d) of claim 20 reads:

(d) including within a clique with said one of the nodes

a node in said first group of nodes, and

a node in said second group of nodes that communicates directly with said one of the nodes node and with said node in said first group of nodes.

The Examiner stated that "it is unclear whether plural groups of nodes make up a clique and also unclear which node(s) of which group(s) of which clique(s) are directly communicating."

As explained in Applicant's specification, a clique is a group of transmitters, or nodes, that are all neighbors of each other (p.6 lines 2-5). One way to define a clique is described at page 6 line 26 to page 7 line 2 of Applicants' specification:

> Cliques can be created using a list of neighbors and a list of each neighbor's neighbors. To generate the cliques that a node is a member of, a node must consider all combinations of its node identification (id)...with those ids of its neighbors (using its neighbor list) and the node must examine each combination for complete connectedness (using each neighbor's list of neighbors).

This method of defining a clique is echoed in Applicants' claim 20, in which a node (the node identified in step (a)), a list of the node's neighbors (the first group of nodes), and each neighbor's list of neighbors (the second group of nodes) are examined for complete connectedness (direct communication with each other).

Applicants agree that some of the language in claim 20 is somewhat confusing, and applicants have therefore amended claim 20 to eliminate such confusion. Specifically, claim 20 now recites that the method: identifies a node in step (a); identifies a first group of nodes that directly communicate *with the node identified in step (a);* identifies, for each node in the first group of nodes, a second group of nodes, wherein each of the second group of nodes communicates directly with its respective node in the first group of nodes; and include within a clique *the node identified in step (a)*, a node in the first group of nodes, and a node in the second group of nodes that communicates directly with

the *node identified in step (a)* and with the node from the first group of nodes. It is believed that by defining the clique as based upon the node identified in step (a), it is clear that a clique is defined, in claim 20, as searching (1) a node's neighbors, and (2) the neighbor's neighbors, for complete connectedness, as explained in Applicant's specification. A clique is therefore made up of nodes selected from the first and second groups of nodes that directly communicate with each other and with the node selected in step (a) of claim 20.

Claims 21 and 22 were rejected under 35 U.S.C. § 112, second paragraph, as depending from claim 20. However, with the above amendment and explanation, the Examiner's rejection of claim 20 should be withdrawn, and the rejection to claims 21 and 22 should therefore be withdrawn as well.

Claim 24: The Examiner rejected claim 24 as being confusing "because it recites a step (f) while its parent claim (claim 1) does not recite any earlier steps, namely (a) – (e)." Applicant disagrees that such a naming of steps is confusing. Method steps recited in claims 24-27 are named (f), (g) and (h) to differentiate these steps from steps (a) – (e) recited in claims 20-22. Naming the steps (f) (g) and (h) does not necessarily imply that previous steps are required, or that the steps (a)-(e) in claims 20-22 are implicitly included in claim 24. However, in the interest of reducing issues on appeal, Applicants have amended claims 24-27 to replace (f)-(h) with (a)-(c), respectively. Such amendment, if accepted, would remove the Examiner's indefiniteness rejection of claim 24 and of claims 25-29, which depend directly or indirectly from claim 24.

Claim 25: The Examiner rejected claim 25, asserting that "[i]t is unclear what is meant by 'at least as many neighboring clique as any neighboring clique.'" A method of assigning time slots to cliques to minimize the number of slots required to accommodate communications between nodes is described beginning at page 10 line 16. According to the method (page 10 lines 19-22):

> The idea is to first assign slots to cliques that have an isolated node on the edges of the network, *then to assign slots to the most richly connected cliques in the interior,* and then to assign slots to cliques that bridge these.

(Italics added for emphasis) The specification describes how this idea is implemented by outlining six ordered steps or conditions that the slot assignment method goes through. The second of the ordered conditions (page 10 lines 25-26) is that a clique is assigned a time slot if it has "more or an equal amount of neighboring cliques as any neighboring clique." In other words, a clique is assigned a time slot at this point in the assignment hierarchy if the clique is "richly connected" to other cliques in the interior of the network.

Applicants have amended claim 25 to recite that "cliques having as many neighboring *cliques* as any neighboring clique are next assigned time slots." The amendment changes the word "clique" to the italicized "cliques," thereby clarifying the step. As it is now clear what is meant by this claim, the Examiner's rejection thereto (and to claims 26-29, which depend therefrom) should be withdrawn.

Applicants acknowledge that this amendment is presented after a final rejection has been issued in this application, and that entry of the amendment is therefore discretionary. However, applicants respectfully request this amendment be entered because (a) the amendment materially reduces issues on appeal, (b) it makes amendments to claims rejected only once in the prosecution of the application, (c) no new matter is included in the application, and (d) no new search is required when the amendment is entered. By entering this amendment, the remaining rejections to the claims would be to claims 1, 2 and 23, and the rejections to these claims are discussed in applicants' appeal brief.

Accordingly, with the entry of this amendment and upon consideration of the remarks and arguments contained herein and in the concurrently filed Appeal Brief, all pending claims are now allowable, and a Notice of Allowance is earnestly solicited. The Examiner is requested to contact the undersigned attorney if further issues remain in the prosecution of this application.

Respectfully submitted,

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MARKED-UP VERSION
SHOWING CHANGES MADE TO THE CLAIMS

Shown below are amendments to the claims, in which bracketed material has been deleted and underlined material has been added.

IN THE CLAIMS:

Claims 20 and 24-27 have been amended as follows:

20. (Once Amended) The method of claim 1, wherein the assigning step for each node comprises:

(a) identifying one of the nodes;

(b) identifying a first group of nodes, said first group of nodes comprising any nodes that directly communicate with [said one of] the [nodes] node identified in step (a);

(c) for each node in the first group of nodes, identifying a second group of nodes, said second group of nodes comprising any nodes that directly communicate with said each node in the first group of nodes; and

(d) including within a clique with [said one of] the [nodes] node identified in step (a)

a node in said first group of nodes, and

a node in said second group of nodes that communicates directly with [said one of] the [nodes] node identified in step (a) and with said node in said first group of nodes.

24. (Once Amended) The method of claim 23, wherein the step of choosing time slots comprises assigning time slots to the cliques according to a hierarchy wherein:

([f]a) cliques having a node that is a member of only one clique are first assigned time slots.

25. (Once Amended) The method of claim 24, wherein:

([g]b) cliques having at least as many neighboring [clique] cliques as any neighboring clique are next assigned time slots.

26. (Once Amended) The method of claim 25, wherein:

([h]c) cliques having two or more neighbors that were assigned time slots in steps ([f]a) and ([g]b) are next assigned time slots.

27. (Once Amended) The method of claim 26, wherein cliques having two or more neighbors that were assigned time slots in step ([f]a) are next assigned time slots.